

REMARKS

Claims 1-7 are pending in the present application.

Applicant has carefully studied the outstanding Office Action. The present Response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of this application are respectfully requested.

CLAIM REJECTIONS – 35 U.S.C. § 103(a)

Claim 1

The Examiner rejected claims 1-7 under 35 U.S.C. §103(a), as being unpatentable over Dharia et al, U.S. Published Application No. 2002/0123337, and further in view of Thorburn et al, U.S. Patent No. 6,898,428. Specifically, with regard to claim 1 the Examiner has stated:

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0123337 to Dharia et al (hereinafter Dharia) and further in view of U.S. Pat. No. 6,898,428 to Thorburn et al (hereinafter). Dharia discloses a system for data transmission and reception comprising (abstract):

a wireless data broadcast system broadcasting outgoing data from a data network to a plurality of users, the wireless data broadcast system further comprising (Fig. 1, element 123, 101, 111-n, MS):

a wireless data return path system receiving incoming data from the plurality of users and providing the incoming data to the data network, the wireless data return path system further comprising (page 1, [0005]; Dharia teaches an up link and down link for receiving and sending traffic between users and BTS);

one or more wireless collector systems receiving data from a predetermined set of the plurality of users (page 1, [0005]; Dharia teaches the use of collectors to broadcast traffic);

Although the system disclosed by Dharia shows substantial features of the claimed invention, it fails to disclose:

one or more wireless broadcast repeaters and one ore [sic] more return path repeater systems receiving data from one or more predetermined wireless collector systems; and

wherein the system uses terrestrial line-of-sight broadcasting in conjunction with satellite data transmission systems.

In support of the 103(a) rejection, the Examiner points to analogous art, Thorburn:

However, in an analogous art, Thorburn teaches:

one or more wireless broadcast repeaters (Fig. 4d and col. 4, lines 42 – 49) and one ore [sic] more return path repeater systems receiving data from one or more predetermined wireless collector systems (Fig. 4j and col. 5, lines 17 – 25); and

wherein the system uses terrestrial line-of-sight broadcasting in conjunction with satellite data transmission systems (abstract, Fig. 1, col. 2, line 52 – col. 3, line 46).

Given the teachings of Dharia and Thorburn, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantages of adding repeaters and using terrestrial line-of-sight broadcasting in conjunction with satellite in order to increase reliability.

The Applicant respectfully requests the Examiner to reconsider the present rejection in view of the present remarks and comments. Applicant continues to believe that the Examiner has failed to establish a *prima facie* case of obviousness. In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. In *re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). To establish a *prima facie* case, the Examiner must show three things. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, all the claim limitations must be shown in the prior art reference or references. In *re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Here, the burden on the Examiner to establish a *prima facie* case of obviousness has not been satisfied. To wit, several of the claim limitations of the present invention are not disclosed in either of the cited prior art references.

For the present response, the Applicant focuses on the aspects of the present invention that are not disclosed within Dharia and Thorburn and reasons for withdrawal of the rejection directed toward the present invention.

“wherein the system uses terrestrial line-of-sight broadcasting in conjunction with satellite data transmission systems”

A careful examination of Thorburn and the present claim language reveals some incompatible statements that result in Thorburn failing to teach that which is claimed by the Applicant. First, an examination into the aforementioned claim language is appropriate.

The claim language states that the system uses “terrestrial line-of-sight broadcasting.” In such a system, the transmitter and receiver are both terrestrially located on the ground and both units must be in line-of-sight in that the height of the transmitter and receiver must be sufficient that the curvature of the earth and other geographical features do not inhibit line of sight communication. Second, the claim language requires that the “terrestrial line-of-sight broadcasting be used in conjunction with satellite data transmission systems.” A reading of the claim language in view of the specification quickly reveals that “satellite data transmission systems” as claimed, refers to the technology as used within satellite data transmission systems not actual satellites in orbit. Looking at paragraph [0029] of the specification, the figures depict “an up-converter 220 and antenna 222 [that] can operate works [sic] at a suitable frequency, such as one between 2.0 to 40.0 GHz.” 2.0 to 40.0 GHz and the use of an “up-converter” would be instantly recognized by a person having ordinary skill in the art as references to satellite communication technology. In fact, the most commonly used satellite bands (L/S, C, Ku, and Ka) all operate within this range for down-links. (See e.g., <http://www.linktionary.com/s/satellite.html>) As claimed, using this technology with terrestrial line-of-sight broadcasting is not disclosed by Thorburn or Dharia. The Applicant has been unable to find any suggestion within Dharia or Thorburn to use satellite communication technology in a terrestrial line-of-sight wireless broadcast network and absent such disclosure, the Applicant believes the claim as it currently stands is patentable over the cited prior art.

However, if the Examiner believes it to be helpful in allowing the claims, the Applicant would be willing to accept an Examiner’s amendment similar to the following:

“wherein the wireless data broadcast system ~~uses terrestrial line-of-sight broadcasting in conjunction with~~ incorporates satellite data transmission systems in a terrestrial-based line-of-sight wireless data broadcast system.”

The Applicant believes the aforementioned amendment may better explain the nature of the present invention without having to reference back to the specification.

“one or more wireless broadcast repeaters and one or more return path system repeaters receiving data from one or more predetermined wireless collector systems:”

Additionally, Thorburn fails to disclose “repeaters” as claimed by the present invention. The term “broadcast repeater” is defined by example in paragraph [0032] of the Applicant’s specification:

Broadcast repeater 310A is a transposer that receives the incoming carrier wave on antenna 504 at frequency F1 and converts the frequency to F2 for transmission to the user or distributor 506 using antenna 502.

Similarly, “return path system repeater” is defined by example in paragraph [0033] of the Applicant’s specification:

Return path system repeater 224 receives the carrier wave at frequency F3 from the end users or from the collectors 508 and converts the frequency to F4 for transmission to hub 120 or another repeater using antenna 504.

Therefore, in the present invention a repeater, as defined within the specification, is a device that receives an incoming signal at a first frequency (F1 or F3) and transmits the signal at a second frequency (F2 or F4). This is distinguished from a relay-type device which simply relays the signal of a particular wireless communication or a signal booster device which simply accepts the signal and amplifies the signal at the same carrier frequency even though the latter may be referred to as a repeater in some instances. For example, in Thorburn the use of the word “repeater” is used to describe a system which “boosts” the signal strength, but never changes the actually carrier frequency. The distinction can be better understood by reference to Figure 4c and the description of the Thorburn invention as incorporating a “conventional forward link repeater.” This booster-type “repeater” does not have the same characteristics and behavior as the “repeater” claimed within the present application (and in view of the Applicant’s specification). This distinction is not insignificant and it is entirely permissible for the Applicant to define “repeater” in a manner that is inconsistent with the Thorburn reference. From MPEP § 2106, “an applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning.” *See In re*

Paulsen, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Here, the applicant has clearly defined the term “repeater” in a way that is inconsistent with the “repeater” disclosed by Thorburn. For this reason, Thorburn’s disclosure of a “repeater” does not, in and of itself, disclose the “repeaters” as claimed by the present invention. Since an obviousness rejection requires that the references, when combined, disclose all of the claim limitations, the combination of Dharia and Thorburn fail to disclose either “broadcast repeaters” or “return path system repeaters”

CONCLUSION

It is respectfully urged that the subject application is patentable over references cited by Examiner and is now in condition for allowance. Applicant requests consideration of the application and allowance of the claims. If there are any outstanding issues that the Examiner feels may be resolved by way of a telephone conference, the Examiner is cordially invited to contact David W. Carstens at 972.367.2001.

The Commissioner is hereby authorized to charge any additional payments that may be due for additional claims to Deposit Account 50-0392.

Dated this 21st day of August, 2006.

Respectfully submitted,

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